

Mineral Industry Surveys

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MOLYBDENUM IN JUNE 2002

Domestic production of molybdenum in concentrate in June 2002 was about 11% more than that of the previous month and was 22% less than that of June 2001, according to the U.S. Geological Survey. Producer stocks of molybdenum in concentrate, oxide, and other product forms were 9,740 metric tons at the beginning of 2002, and 5,990 metric tons at the end

of June.

Included in this Mineral Industry Surveys are U.S. production and shipments of molybdenum concentrates and materials, plus U.S. consumption, by end use, and stocks, of molybdenum material in May and June 2002; also included are trade data for April and May 2002.

TABLE 1
U.S. SALIENT MOLYBDENUM CONCENTRATE STATISTICS 1/

(Metric tons, contained molybdenum)

	2001			
	January- December p/	May r/	June	Year to date
Production	37,600	2,410	2,670	14,800
Shipments: 2/				
Domestic	20,700	1,590	1,630	10,600
Export	16,300	730	993	5,340

p/ Preliminary. r/ Revised.

 ${\bf TABLE~2} \\ {\bf U.S.~REPORTED~PRODUCTION~AND~SHIPMENTS~OF~MOLYBDENUM~PRODUCTS~1/}$

(Metric tons, contained molybdenum)

	2001			
	January-			Year to
	December p/	May	June	date
Gross production	40,300	2,500	2,050	13,900
Internal consumption 2/	24,600	1,370	1,070	9,300
Gross shipments	32,600	2,480	2,570	14,000

p/ Preliminary.

 ${\it TABLE~3}$ U.S. REPORTED CONSUMPTION, BY END USES, AND CONSUMER STOCKS OF MOLYBDENUM MATERIALS 1/

(Kilograms, contained molybdenum)

	Molybdic	Ferro molyb-	Ammonium and sodium	Molyb- denum		
End use	oxides	denum 2/	molybdate	scrap	Other	Total
2002, May:			<u>, </u>	•		
Steel:						
Carbon	12,200	23,400			1,810	37,400
High-strength low-alloy	31,100	6,970			11,300	49,400
Stainless and heat-resisting	171,000 r/	31,000 r/			8,520	211,000 r/
Full alloy	99,100	155,000			2,700	257,000
Tool	53,700	3,080 r/			1,450	58,300 r/
Total	367,000 r/	220,000 r/			25,800	613,000
Cast irons (gray, malleable, and ductile iron)	W	13,900 r/			763 r/	14,700 r/
Superalloys	50,800	W		(3/)	98,300 r/	149,000 r/
Alloys: (other than steels, cast irons, and superalloys)						
Welding materials (structural and hard-facing)		W			6	6
Other alloys	W	2,540			6,350 r/	8,890
Mill products made from metal powder 4/					72,100	72,100
Cemented carbides and related products 5/					13	13
Chemical and ceramic uses:						
Pigments			W		W	W
Catalysts	77,300		W		W	77,300
Other					1,200	1,200
Miscellaneous and unspecified uses:						
Lubricants					15,100	15,100
Other	1,730	3,080 r/	75,100		14,900 r/	94,900
Grand total	497,000 r/	239,000 r/	75,100		235,000 r/	1,050,000
Stocks, May 31, 2002	364,000	146,000 r/	6,470	18,400	860,000 r/	1,390,000 r/

See footnotes at end of table.

^{1/} Data are rounded to no more than three significant digits.

^{2/} Includes molybdic oxides, metal powder, ammonium molybdate, sodium molybdate, and other.

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^{2/} Includes molybdic oxides, metal powder, ammonium molybdate, sodium molybdate, and other.

 ${\it TABLE~3}\\ {\it U.S.}~{\it REPORTED~CONSUMPTION,~BY~END~USES,~AND~CONSUMER~STOCKS~OF~MOLYBDENUM~MATERIALS~1/2}$

(Kilograms, contained molybdenum)

	Molybdic	Ferro molyb-	Ammonium and sodium	Molyb- denum		
End use	oxides	denum 2/	molybdate	scrap	Other	Total
2002, June:			<u> </u>			
Steel:						
Carbon	11,000	24,600			W	35,500
High-strength low-alloy	31,100	7,120			W	38,200
Stainless and heat-resisting	149,000	42,300			8,520	200,000
Full alloy	97,300	147,000			2,580	247,000
Tool	59,800	W			14,600	74,400
Total	348,000	221,000			25,700	595,000
Cast irons (gray, malleable, and ductile iron)	W	14,400			W	14,400
Superalloys	39,900	W		(3/)	72,300	112,000
Alloys: (other than steels, cast irons, and superalloys)						
Welding materials (structural and hard-facing)		W			6	6
Other alloys	W	2,360			6,350	8,700
Mill products made from metal powder 4/					76,800	76,800
Cemented carbides and related products 5/	<u></u>				6	6
Chemical and ceramic uses:						
Pigments			W		W	W
Catalysts	77,300		W		W	77,300
Other			240		875	1,110
Miscellaneous and unspecified uses:						
Lubricants					14,700	14,700
Other	1,840	17,900	75,300		14,900	110,000
Grand total	467,000	256,000	75,600		212,000	1,010,000
Stocks, June 30, 2002	369,000	168,000	5,940	45,900	858,000	1,450,000

r/Revised. W Withheld to avoid disclosing company proprietary data; included in "Other" of the "Miscellaneous and unspecified uses" category. -- Zero.

TABLE 4
U.S. EXPORTS OF MOLYBDENUM ORES AND CONCENTRATES (including roasted concentrate), BY COUNTRY 1/

(Kilograms, contained molybdenum)

	2001			
	January-		2002	
Country	December	April	May	Year to date
Australia	147000			21000
Belgium	3,380,000	366,000	157,000	2,270,000
Brazil	30,100	3,670	4,860	17,100
Canada	650,000	122,000	70,300	416,000
Chile	11,800		1,210	4,880
China	201,000	32,900		32,900
Germany	512,000			58,700
India	294,000	46	45	114,000
Italy	95,000	22,400		47,900
Japan	1,700,000	57,300	83,400	570,000
Korea, Republic of	29,200	4,000	6,080	48,800
Mexico	764,000	1,000	2,400	117,000
Netherlands	13,500,000	540,000	427,000	2,860,000
Spain	63,400		2,380	38,300
Sweden	48,200	23,700		24,300
United Kingdom	6,210,000	448,000	386,000	2,220,000
Other	187,000	14,100		138,000
Total	27,800,000	1,640,000	1,140,000	9,000,000

⁻⁻ Zero

Source: U.S. Census Bureau.

^{1/} Data are rounded to no more than three significant digits; may not add to totals shown.

^{2/} Includes calcium molybdate.

^{3/} Included in "Other" of the "Superalloys" category.

^{4/} Includes ingot, wire, rod, and sheet.

^{5/} Includes construction, mining, oil and gas, metal working machinery.

^{1/} Data are rounded to no more than three significant digits; may not add to totals shown.

 ${\bf TABLE~5} \\ {\bf U.S.~EXPORTS~OF~FERROMOLYBDENUM,~BY~COUNTRY~1/}$

(Kilograms, contained molybdenum)

	2001	2002			
	January-			Year to date	
Country	December	April	May		
Australia	599				
Canada	442,000	50,400	38,800	217,000	
China	11,500			240	
Germany	111,000				
Korea, Republic of	876				
Mexico	50,300		17,700	22,800	
Netherlands	12,600				
Taiwan	·		274	274	
Total	629,000	50,400	56,800	240,000	

⁻⁻ Zero.

Source: U.S. Census Bureau.

 $\label{eq:table 6} \text{U.S. IMPORTS FOR CONSUMPTION OF MOLYBDENUM PRODUCTS 1/}$

(Kilograms, unless otherwise specified)

	January-December 2001			May 2002			
	Gross	Contained	Value (c.i.f.)	Gross	Contained	Value (c.i.f.)	
Material	weight	molybdenum	(thousands)	weight	molybdenum	(thousands)	
Ore and concentrates roasted	9,470,000	6,000,000	\$32,900				
Ore and concentrates other	10,000	11,600	73				
Molybdenum chemicals:							
Oxides and hydroxides	1,010,000	NA	5,530	89,500	NA	\$494	
Molybdates of ammonium	2,740,000	1,610,000	15,100	212,000	123,000	1,030	
Molybdates (all others)	318,000	113,000	1,050	54,100	7,240	169	
Molybdenum orange	1,120,000	NA	5,180	195,000	NA	707	
Ferromolybdenum	5,570,000	3,580,000	21,400	285,000	183,000	1,220	
Molybdenum powders	172,000	163,000	3,390	4,360	3,030	93	
Molybdenum unwrought	24,700	24,400	267	5,850	5,840	70	
Molybdenum waste and scrap	776,000	749,000	7,160	57,300	56,700	574	
Molybdenum wire	16,900	NA	1,080	457	NA	31	
Molybdenum other	14,400	NA	1,940				
Total	21,200,000	12,200,000	95,100	904,000	378,000	4,390	

NA Not available. -- Zero.

Source: U.S. Census Bureau.

^{1/} Data are rounded to no more than three significant digits, may not add to totals shown.

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